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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,722	03/18/2004	Scott Burgett	702.340	6996
7590	11/04/2004		EXAMINER [REDACTED]	SUN, XIUQIN
Devon A. Rolf GARMIN INTERNATIONAL, INC. 1200 East 151st Street Olathe, KS 66062			ART UNIT [REDACTED]	PAPER NUMBER 2863

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,722	BURGETT ET AL.	
	Examiner	Art Unit	
	Xiujin Sun	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 18 March 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7 and 10-16 is/are rejected.

7) Claim(s) 8,9,17 and 18 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 18 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7 and 10-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Burgett et al. (U.S. Pat. No. 6768449 B1).

Burgett et al. teach a method for estimating altitude, comprising: an input receiving altitude readings (col. 4, lines 45-49); determining a time lapse since a last altitude calibration (col. 5, lines 32-46); obtaining, from a drift error model, an expected error in altitude readings based on the time lapse since the last altitude calibration (col. 7, lines 1-67 and col. 8, lines 1-10); and calculating an estimated altitude based on the expected error (col. 5, lines 53-63 and col. 8, lines 36-49). The teaching of Burgett et al. further include: said determining a time lapse is performed at turn on (col. 5, lines 32-46); said determining a time lapse is performed periodically throughout operation (Fig 4 and col. 5, lines 32-46); said drift error model is a barometric drift model (col. 7, lines 1-67 and col. 8, lines 1-10); generating the drift error model based on empirical studies

during which barometric pressure is repeatedly measured at a fixed coordinate location and altitude (col. 8, lines 50-67 and col. 9, lines 1-13); storing in the drift error model an acceptable variation between actual altitude and an altitude derived from barometric pressure (col. 4, lines 45-49 and col. 5, lines 21-25); and said drift error model defines a statistical relationship between an anticipated drift in a barometric altimeter reading based upon an amount of time since last calibration (col. 7, lines 1-67 and col. 8, lines 1-10).

Allowable Subject Matter

3. Claims 8, 9, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 8 and 17 is the inclusion of the limitation of generating said drift error model based on repeated measurements at a fixed coordinate location, where the measurements are compared with one another to determine a range over which barometric pressure varies within predetermined periods of time. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 9 and 18 is the inclusion of the limitation of storing, in the drift error model, predetermined ranges over which barometric pressure varies within discrete periods of time. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Prior Art Citations

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- 1). Johnson et al. (U.S. Pat. No. 6216064) disclose a method and apparatus for determining altitude.
- 2). Beason et al. (U.S. Pat. No. 6529827) disclose the GPS device with compass and altimeter and method for displaying navigation information .

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (571)272-2280. The examiner can normally be reached on 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571)272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Xiuqin Sun
Examiner
Art Unit 2863

XS
XS
October 23, 2004

JB
John Barlow
Supervisory Patent Examiner
Technology Center 2800